



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/829,529

04/22/2004

Scott Mordin Hoyte

137243

7322

7590

07/13/2009

John S. Beulick
Armstrong Teasdale LLP
Suite 2600
One Metropolitan Square
St. Louis, MO 63102

EXAMINER

JARRETT, RYAN A

ART UNIT

PAPER NUMBER

2121

MAIL DATE

DELIVERY MODE

07/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/829,529	Applicant(s) HOYTE ET AL.	
	Examiner RYAN A. JARRETT	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 9-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Follin et al. US 2003/0163288. Follin et al. discloses:

1. A method for operating a facility having a plurality of equipment combinations (e.g., Fig. 1 #12), each equipment combination is operable interactively with at least one other equipment combination, said method comprising:

receiving a plurality of measured process parameters, in real-time, for each of the plurality of equipment combinations (e.g., Fig. 1 #22, [0041]-[0046]), wherein the equipment combinations include at least a driver machine and a driven machine (e.g., Fig. 1 #12);

determining at least one derived quantity from at least one measured process parameter associated with at least a first of the equipment combinations and from at least one measured process parameter associated with at least a second of the equipment combinations (e.g., [0049]: “ambient temperature might be measured by an ambient temperature sensor, or alternatively, by measuring other parameters and estimating ambient temperature”;

Art Unit: 2121

[0050]: “use an estimation, i.e., a backup value, of ambient temperature based on other sensors, rather than the ambient temperature sensor itself”), **wherein the at least one derived quantity is compared to a measured process parameter** (e.g., [0048]: “compare this estimated inlet pressure drop with the actual measured inlet pressure drop”, [0060]: “The ‘calculated’ fuel flow is then compared to the measured fuel flow”) **to verify an operability of at least one sensor** (*not positively recited, no patentable weight*, [0060]: “If the measured fuel flow and the calculated fuel flow don't agree within a specified tolerance, the output data is discarded”); **and recommending a change to an equipment operation based on the measured process parameters and the at least one derived quantity** (e.g., [0078]-[0079]: “obtained operating parameters may also be used to enhance...the ability to operate turbines in the field”).

2. A method in accordance with Claim 1 wherein receiving a plurality of measured process further comprises receiving measured process parameters intermittently (e.g., [0018]).

3. A method in accordance with Claim 1 wherein determining at least one derived quantity comprises determining at least one derived quantity in real-time (e.g., [0047]-[0059]).

7. A method in accordance with Claim 1 further comprising receiving measured process parameters from a remote input/output device (e.g., [0018]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Follin et al. as applied to claim 1 above, and further in view of Hsiung et al. US 2006/0259163.

Follin et al. does not appear to disclose the particulars of claims 4-6 and 8.

Hsiung et al. discloses:

4. A method in accordance with Claim 1 wherein determining at least one derived quantity comprises:

receiving measured process parameters associated with each of the at least one derived quantity; and

determining each of the at least one derived quantity using at least one rule from a rule set (e.g., [0041], [0043], [0371]).

5. A method in accordance with Claim 1 further comprising generating a rule set for an equipment combination using at least one of the measured process parameters, the at least one derived quantity, a design specification for the equipment combination, a maintenance history of the equipment combination, and an expert database (e.g., [0041], [0043], [0371]).

6. A method in accordance with Claim 1 further comprising receiving technical information from an online interactive technical manual for at least one equipment combination (e.g., [0460]).

Art Unit: 2121

8. A method in accordance with Claim 1 further comprising receiving measured process parameters from a portable data logger (e.g., [0290]).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Follin et al. with Hsiung et al. since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. See *KSR v. Teleflex*, 127 S.Ct. 1727 (2007).

One would have been motivated to make such a combination since Hsiung et al. teaches that a rule set/expert system is an accurate and reliable way to model/calculate the derived quantities/sensor estimates of the kind disclosed in Follin et al.

Art Unit: 2121

Election/Restrictions

Applicant's election with traverse of claims 1-8 in the reply filed on 11/24/08 is acknowledged. The traversal is on the ground(s) that a search of the entire application can be made without serious burden. This is not found persuasive because the different inventions would require different text search queries and would potentially require the application of different references.

The requirement is still deemed proper and is therefore made FINAL.

Claims 9-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/24/08.

Drawings

The drawings were received on 03/26/09. These drawings are acceptable.

Response to Arguments

Applicant's arguments, see pages 12-13, filed 03/26/09, with respect to claims 1-8 have been fully considered and are persuasive. The rejection of claims 1-8 under 35 U.S.C. 112 1st paragraph has been withdrawn.

Applicant's arguments and accompanying amendments, see page 13, filed 03/26/09, with respect to claims 1, 2, 4, and 5 have been fully considered and are persuasive. The rejection of claims 1-8 under 35 U.S.C. 112 2nd paragraph has been withdrawn.

Applicant's arguments, see pages 13-15, filed 03/26/09, with respect to the rejection of claims 1-3 and 7 under 35 U.S.C. 102(e) have been fully considered but they are not persuasive. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

In response to Applicant's argument that Follin et al. does not teach deriving a quantity from measure process parameter, it is noted that Follin et al. teaches (e.g., [0049]: "ambient temperature might be measured by an ambient temperature sensor, or alternatively, by measuring other parameters and estimating ambient temperature", [0050]: "use an estimation, i.e., a backup value, of ambient temperature based on other sensors, rather than the ambient temperature sensor itself").

In response to Applicant's argument that Follin et al. does not teach comparing the derived quantity to a measured process parameter, it is noted that Follin et al. teaches (e.g., [0048]: "compare this estimated inlet pressure drop with the actual measured inlet pressure drop", [0060]: "The 'calculated' fuel flow is then compared to the measured fuel flow").

Art Unit: 2121

In response to Applicant's argument that Follin et al. does not teach "to verify an operability of at least one sensor", it is noted that this is not a positive recitation and thus does not carry patentable weight. Nevertheless, it is noted that Follin et al. teaches ([0060]: "If the measured fuel flow and the calculated fuel flow don't agree within a specified tolerance, the output data is discarded").

In response to Applicant's argument that Follin et al. does not teach "recommending a change...", it is noted that Follin et al. teaches (e.g., [0078]-[0079]: "obtained operating parameters may also be used to enhance...the ability to operate turbines in the field").

Art Unit: 2121

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN A. JARRETT whose telephone number is (571)272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2121

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ryan A. Jarrett/
Primary Examiner, Art Unit 2121

07/09/09